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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,354	10/30/2001	Richard F. Lyon	FOV-056	1358

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[REDACTED] EXAMINER

HARRINGTON, ALICIA M

[REDACTED] ART UNIT      [REDACTED] PAPER NUMBER

2873

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/001,354

Applicant(s)

LYON ET AL.

Examiner

Alicia M Harrington

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 30 October 2001 and 11 March 2002.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.
- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Disposition of Claims**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 30 October 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

- 4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Information Disclosure Statement*

The Examiner has partially considered the information disclosure statement filed on 3/11/02. The Dykaar et al. Reference fails to disclose a month and year of publication.

### *Specification*

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,4,14 are rejected under 35 U.S.C. 102(b) as being anticipated by **Hirose (US 4,009,942)**.

Regarding claim 1, Hirose discloses a zoom lens device comprising at least two lenses for compensating for a spherical and coma aberrations generated in a camera with a prism (see col. 3, lines 30-55 and col. 4, lines 35-40).

Regarding claims 4 and 14, Hirose discloses a camera with beam splitting prism (6) where the corrector optics is between the objective lens (11) and prism (see figures 1 and 2).

Claims 1, 2, 4,14,15,17,19,20,21 are rejected under 35 U.S.C. 102(b) as being anticipated by **Griffith (US 5,726,809)**.

Regarding claims 1 and 4, Griffith system is designed to correct spherical and comma aberrations (see col. 6, lines 3-6 and 19-25 and 35-38). The system comprises a camera with a rear lens attachment (50; see figures 1-3) that is attached to the objective lens between the objective and the camera body that includes a prism.

Regarding claims 2 and 5, Griffith system comprises at least two lenses comprising a positive lens (L3) being disposed between the objective (10) and the prism (see figure 1) and having a convex surface disposed toward the object lens; and a negative lens (L6) being disposed between the positive lens and the prism and having a concave surface disposed toward the prism (see figure 1 and 3).

Regarding claim 14, Griffith system is designed to correct spherical and comma aberrations (see col. 6, lines 3-6 and 19-25 and 35-38). The system comprises a camera with a rear lens attachment (50; see figures 1-3) that is attached to the objective lens between the objective and the camera body that includes a prism.

Regarding claim 15, Griffith system comprises at least two lenses comprising a positive lens (L3) being disposed between the objective (10) and the prism (see figure 1) and having a convex surface disposed toward the object lens; and a negative lens (L6) being disposed between the positive lens and the prism and having a concave surface disposed toward the prism (see figure 1 and 3).

Regarding claim 17, the prism is a viewfinder prism.

Regarding claim 19, Griffith system is designed to correct spherical and comma aberrations (see col. 6, lines 3-6 and 19-25 and 35-38). The system comprises a camera with a rear lens attachment (50; see figures 1-3) that is attached to the objective lens between the objective and

the camera body that includes a prism. As exhibited in figure 1 by the dotted lines, the attachment has a front and rear mount.

Regarding claim 20-21, Griffith system comprises at least two lenses comprising a positive lens (L3) being disposed between the objective (10) and the prism (see figure 1) and having a convex surface disposed toward the object lens; and a negative lens (L6) being disposed between the positive lens and the prism and having a concave surface disposed toward the prism (see figure 1 and 3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2,5,8,15,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose in view of Griffith (US 5,726,809).**

Regarding claims 2 and 5, Hirose discloses the compensating lens comprises negative lens (see col. 6, lines 20-25). However, Hirose fails to specifically disclose the claimed lens arrangement. Although, it is well known in the art, as taught by Griffith.

In the same field of endeavor, Griffith discloses a camera system with a compensating lens where at least two lenses comprising a positive lens (L3) being disposed between the objective (10) and the prism (see figure 1) and having a convex surface disposed toward the object lens; and a negative lens (L6) being disposed between the positive lens and the prism and having a concave surface disposed toward the color separating prism (see figure 1 and 3). Thus,

it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify, Hirose as taught by Griffith to provide a rear lens attachment/compensation system that compensates for aberration, such as coma and spherical.

Regarding claim 8, Hirose prism is a color separation prism.

Regarding claim 15, Hirose discloses the compensating lens comprises negative lens (see col. 6, lines 20-25). However, Hirose fails to specifically disclose the claimed lens arrangement. Although, it is well known in the art, as taught by Griffith.

In the same field of endeavor, Griffith discloses a camera system with a compensating lens where at least two lenses comprising a positive lens (L3) being disposed between the objective (10) and the prism (see figure 1) and having a convex surface disposed toward the object lens; and a negative lens (L6) being disposed between the positive lens and the prism and having a concave surface disposed toward the color separating prism (see figure 1 and 3). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify, Hirose as taught by Griffith to provide a rear lens attachment/compensation system that compensates for aberration, such as coma and spherical.

Regarding claim 16, Hirose discloses color separation prism.

**Claims 3,13,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith, as applied in claim 2, 5, 15 respectively above.**

Regarding claims 3, 13, and 18, as discussed above, Griffith discloses the compensator lens comprises a positive and negative lens as claimed. Griffith discloses the lenses having much different material (see table 1). The chart suggests the positive lens (l3) and negative lens (l6) do

not have the same properties, such as material, abbe number and index of refraction. Although, Griffith fails to specifically disclose the all the differences of between the lenses, Griffith clearly suggest having lens with different index of refraction and abbe numbers to provide a lens system that corrects for coma and spherical aberrations. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the claimed arrangement, since Griffith suggests using different combinations of materials and index of refraction for lens used to compensate for spherical and coma aberration.

**Claims 6,7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith in view of Kono et al (US 6,157,781)**

Regarding claims 6-7, Griffith fails to specifically disclose the color camera includes infrared rejecting filters. However, it is well known in the art to include these elements, as taught by Kono.

In the same field of endeavor, Kono disclose a camera with a rear/compensator lens attachment that is inserted between the objective lens and prism (see figure 4). This compensator lens can comprise infrared rejection filters (see col. 3, lines 48-51 and col. 6, lines 20-25). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include infrared rejecting filter, as taught by Kono, to cut off the infrared component in the image.

**Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose, as applied in claim 8 above, further in view of Kono et al.**

Regarding claim 9-12, Griffith fails to specifically disclose the color camera includes a quarter wave plate and/or infrared rejecting filters. However, it is well known in the art to include these elements in camera systems, as taught by Kono.

In the same field of endeavor, Kono disclose a camera with a rear/compensator lens attachment that is inserted between the objective lens and prism (see figure 4). This compensator lens can comprise different filters (see col. 3, lines 48-51 and col. 6, lines 20-25). In one embodiment, Kono disclose the filter is a low pass filter and in another embodiment the filter is an infrared rejection filter. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include filter, as taught by Kono, to selectively pass optical components component in the image when using a compensating/rear lens attachment system. As discussed previously, Kono discloses the filter can be an infrared cut filter, which helps to keep infrared light from the image. Further, using a quarter wave plate is good for imaging, as it helps to prevent unwanted highlight or reflections from becoming a part of the image. And using a combination of filter between the lens and image plane is notoriously well known in the art- the Examiner takes official notice to that fact. Thus, it would have been obvious to one of ordinary skill in the art to use a quarter wave plate and infrared rejection filter in an imaging system, since the reduce frequencies that would not enhance a visible image.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

Tsutsumi (US 6,058,269) discloses an oscillation isolating attachment lens system;

Ito et al (US 5,602,682) discloses an aberration correcting plate for interchangeable lens;  
and

Hiroshi (JP 361027516A) discloses a rear lens conversion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M Harrington whose telephone number is 703 308 9295. The examiner can normally be reached on Monday - Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 703 308 4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7724 for regular communications and 703 308 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

Alicia M Harrington  
Examiner  
Art Unit 2873

AMH   
January 9, 2003

  
RICKY MACK  
PRIMARY EXAMINER